



**US Army Corps
of Engineers®**

Engineer Research and
Development Center

ARC Digitized Raster Graphics (ADRG)

Description and Background

ADRG is a standard National Imagery and Mapping Agency (NIMA) digital product designed to support applications that require a raster map background display. Paper maps and charts are converted into digital format by raster scanning and transforming the data into the Equal Arc-Second Raster Chart/Map (ARC) system frame of reference. Data collected from a single map/chart series and scale are maintained as a worldwide seamless database of raster graphic data, with each pixel having a distinct geographic location. Topographic Line Maps (TLM) 50 meet Army tactical requirements. Joint Operations Graphics (JOG) meet the Army planning requirements.

Key Capabilities

Color Resolution: In producing ADRG, the maps/charts are scanned at high-resolution (254 dots per inch) and recorded at 24 bits per pixel red, green and blue (RGB).

Content: ADRG consists of the following standard hard-copy products: 1:5,000,000-scale Global Navigation and Planning Charts (GNC), 1:2,000,000-scale Jet Navigation Charts (JNC), 1:1,000,000-scale Operational Navigation Charts (ONC), 1:500,000-scale Tactical Pilotage Charts (TPC), 1:250,000-scale JOG, 1:100,000-scale and 1:50,000-scale TLM, City Graphics, Combat Charts and Nautical Charts.

Structure and Format: ADRG uses ISO 8211 data format.

Coordinate Reference System: The geographic coordinates are referenced to the World Geodetic System 1984. The ADRG product specifications provide the capability to compute coordinates in the chart/map local datum.

Media: Distributed media is CD-ROM, implementing the ISO 9660 volume and file standard.

Standard File Size: Although there is no standard file size, a map/chart may require 75 megabytes of storage space. Typically, ADRG is preprocessed (compressed) to accommodate specific user software applications and hardware platforms.

Accuracy: Same as hard-copy map/chart products.

Current Status

Information about metadata and copies of the Corpsmet program can be obtained via the World Wide Web (WWW) from the U.S. Army Corps of Engineers Geospatial Metadata Server at www.fgdl.mil. NIMA has produced ADRG worldwide for small-scale maps. Extensive coverage of JOGs is available and some coverage is provided of TLM 100s, TLM 50s, and City Graphics for high interest areas.

Point of Contact

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